



Appendix Table 5-66
U.S. utility patents in clean energy and pollution control technologies citing S&E literature, by patent assignee sector, article author sector, and patent issue year: 2011–14

Patent assignee sector and article sector	2011	2012	2013	2014
	USPTO utility patents			
All clean energy and pollution control utility patents	6,921	8,498	8,817	10,179
Patents citing S&E literature, all assignee sectors	1,465	1,873	1,957	2,377
Foreign	539	718	753	951
Unknown country	64	12	9	18
United States	862	1,144	1,194	1,408
Government	22	29	44	47
Private	718	932	927	1,115
Academic	109	130	161	188
Other/individual	11	45	7	8
No Information on organization or unclassified	3	7	56	50
	Citations from USPTO utility patents to S&E articles			
All citations, all article author sectors	9,091	12,020	12,378	15,483
Foreign	5,367	7,576	7,681	9,278
Unknown country	63	77	93	114
United States	3,661	4,367	4,605	6,091
Federal government	183	220	282	379
Industry	601	632	614	802
Academic	2,268	2,644	2,857	3,813
FFRDCs	393	508	504	740
Nonprofit	65	106	95	106
State/local government	2	6	7	7
Joint/unknown sectors	150	252	245	245

NOTES:

FFRDC = federally funded research and development center; USPTO = U.S. Patent and Trademark Office. Article/citation counts are from the set of journals covered by Scopus. Articles are assigned to a sector on the basis of the institutional address(es) listed in the article. Articles/citations are credited on a fractional-count basis (i.e., for articles with collaborating institutions from multiple sectors, each sector receives fractional credit on the basis of the proportion of its participating institutions). Citation counts are based on an 11-year window with a 5-year lag (e.g., citations for 2012 are references in U.S. patents issued in 2012 to articles published in 1997–2007). Detail may not add to total because of rounding.

SOURCES:

National Science Foundation, National Center for Science and Engineering Statistics; SRI International; Science-Metrix; LexisNexis and USPTO patent data; Elsevier, Scopus abstract and citation database (www.scopus.com).

Science and Engineering Indicators 2016

